

08/10/92

May 18, 1992

Docket Nos. 50-348, 50-364
License Nos. NPF-2, NPF-8

Southern Nuclear Operating Company, Inc.
ATTN: Mr. W. G. Hairston, III
Senior Vice President
Nuclear Operations
P. O. Box 1295
Birmingham, AL 35201

Gentlemen:

SUBJECT: ELECTRICAL DISTRIBUTION SYSTEM FUNCTIONAL INSPECTION
FARLEY NUCLEAR PLANT - UNITS 1 AND 2

This letter confirms the dates of June 8-12, June 22-26, and July 6-10, 1992, for the Electrical Distribution System Functional Inspection (EDSFI) at your nuclear plant. These dates were established during a telephone conversation between M. Stinson of your staff and E. Girard of this office on May 4, 1992.

It is our understanding that the management entrance meeting be scheduled for 1:00 p.m. on June 8, 1992. The exit meeting date and time will be established later but are tentatively planned for the week of July 20, 1992.

It is also requested that a presentation be provided for the team to address the following areas of interest:

1. Personnel who will support the inspection.
2. An overview of the various organizational units involved in the design, technical support, operation and maintenance of the Electrical Distribution System (EDS).
3. EDS arrangement, especially any features that may be considered unique to Farley.
4. Specific regulatory commitments (or exemptions) if they are unique in nature.
5. In-house self-assessment programs and identification of findings.
6. An overview of programs/procedures for control of load growth, setpoint control, fuse control, and modifications to the EDS.
7. A summary of past (last five years) and planned major modifications to the EDS.

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8. Overview and status of any design-basis reconstitution program or calculation update program applicable to the EDS.
9. An overview of the documentation you have provided in the work area to support the inspection as requested herein.

The primary objective of this inspection is to assess the capacity and capability of the EDS to perform its intended functions during all plant operating and accident conditions. It is requested that the following documentation and/or records be made available at the designated work area for the NRC team:

1. Electrical drawings
 - a. Schematics for 600/208 VAC motor control centers
 - b. Schematics for 4.16 kV protective relays
 - c. Schematics and other drawings for sequencers
 - d. One line drawings for
 - Switchyard
 - Non Class 1E 4.16 kV and low voltage
 - Class 1E 4.16 kV and low voltage (including 600 VAC load centers and 600/208 VAC motor control centers)
2. Calculations/analyses supporting plant AC and DC electrical system design
 - a. Basis for setting of voltage relays and their control logic
 - b. Short-circuit currents
 - c. Voltage regulation
 - d. Coordination of overcurrent protection (circuit breakers, relays, fuses)
 - e. Cable sizing
 - f. Electrical design computer program users manual and validation process
 - g. Index of electrical calculations, if available
3. Emergency Diesel Generator (EDG) documentation
 - a. Copies of last completed Technical Specification surveillances
 - b. Documentation showing how load acceptance capability and capacity was established (i.e., dynamic loading analysis, test, calculation, etc.)
 - c. Detail drawings and sizing calculations for fuel oil storage tanks and day tanks

- d. Drawings and design-basis documentation for support systems (fuel oil transfer, lube oil, cooling water, room ventilation, starting air, etc.)
 - e. Steady state loading calculation
 - f. EDG relay protection scheme (one-line relay functional diagram)
 - g. EDG vendor manual
4. Electrical and mechanical modifications
 - a. Plant procedures for the control of modifications
 - b. List of electrical modifications (titles and brief descriptions) made to EDS during the last three years
 - c. List of all mechanical modifications to EDS and support systems
 5. Load profiles and sizing calculations for station batteries, battery chargers, and inverters
 6. Records for most recent performance of the following preventive maintenance, calibrations, and tests:
 - a. Degraded voltage and loss of voltage relay calibrations
 - b. Service and capacity tests for safety related batteries
 - c. Class 1E metal clad switchgear calibrations
 - d. Class 1E 4.16 kV protective relaying calibrations
 - e. Class 1E switchgear preventive maintenance
 - f. Class 1E molded case circuit breaker preventive maintenance and calibrations
 - g. Battery charger and inverter preventive maintenance
 7. Protective relay setting list
 8. System descriptions and design criteria for EDS related systems
 9. Purchase specification and manufacturer's test data for EDGs
 10. Procedures for sampling and testing of diesel fuel oil - periodic and receipt inspection of new fuel
 12. Seismic calculations and/or evaluations for EDG components, fuel oil storage and distribution system
 13. HVAC calculation and/or analysis for safety-related electrical equipment spaces, including EDG rooms
 14. Calculations for battery room hydrogen generation

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15. Manufacturers' curves and design data with maximum flow requirements for safety related pumps and fans
16. Safety related service water system piping elevation sketch
17. List of identified problems in EDS over last 5 years by plant problem identification programs

Sufficient licensee personnel, knowledgeable in the above areas, should be available to support the inspection effort. Your cooperation during this inspection will be appreciated. Should you have any questions regarding this inspection, please contact E. Girard at 404/331-4186.

Sincerely,



Caudle A. Julian, Chief
Engineering Branch
Division of Reactor Safety

Enclosure:
NRC Inspection Report

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